PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	The Positive Pharmacy Care Law: An area-level analysis of the relationship between community pharmacy distribution, urbanity and social deprivation in England
AUTHORS	Todd, Adam; Copeland, Alison; Husband, Andy; Kasim, Adetayo; Bambra, Clare

VERSION 1 - REVIEW

REVIEWER	Ben Barr University Of Liverpool, UK
REVIEW RETURNED	20-Jun-2014

GENERAL COMMENTS	This is an interesting paper which raises an important issue, indicating that access to pharmacies is potentially better in more deprived areas than more affluent areas. With pharmacies increasingly being used to deliver public health initiatives this has important implications for health inequalities policy. The methods seem to be appropriate. The finding potentially just reflects that the distribution of pharmacies is related to population density and deprivation is highly correlated with population density. Although the authors adjust for urbanity/rurality - controlling for population density would provide a better estimate of whether the effect is independent of population density. However regardless of the effect of controlling for these factors, the observation that almost all people living in deprived areas have access to a pharmacy within 20 minutes walk is important. The analysis of the interaction between deprivation and rurality in Table 2 seems to be slightly superfluous, a graph of the data in table 1 is sufficient to see that the relationship with deprivation differs accross rurality/urbanity groups and is most pronounced in the town and fringe areas. It would be useful to have some discussion of the processes that result in this distribution of pharmacies, is this likely to be just due to market forces, or is it likely to be the result of the process for accepting new pharmacy applications by NHS England. The paper would be strengthened by a comparison to the distribution of other independent contractors such as GP practices and a discussion of the implications of this for policies that effect this distribution.

REVIEWER	Christine Bond University of Aberdeen UK

REVIEW RETURNED	23-Jun-2014

GENERAL COMMENTS	This is a very interesting paper. There are various figures used to describe access to community pharmacies but many of these are rumoured to be ad hoc calculations and this is the first study I am aware of that has looked at this issue systematically in England. I think there is however a slight ambiguity in the main focus of the paper on whether or nor this is about access to community pharmacies per se, or about access to Public Health Service from community. In their own critique the authors acknowledge that they do not have information in their data set on what services each pharmacy offers so my suggestion would be to reframe the paper so it is about access to community pharmacies. Consideration of what that means would then be in the Discussion. The Background should summarise the pharmacy contract, and make clear for non pharmacists and non English readers the three tiers of service and the recent changes in commissioning for public health services. In general I think it could be shortened without losing any detail. Some specific comments follow. 1. Under strengths and limitations the first bullet implies this is an international comparison which it is not 2. The final bullet in same section also underlies the point about public health made in my general observations. 3. I actually disagree with the first sentence of the background section. Whilst it is true that there is an emphasis on public health, the core contract remains medicine focussed and the advances services which are nationals are about better use of medicines in acute and chronic conditions. The enhances services are commissioned at local level and it is many of these that have the public health focus. 4. Suggest sentence starting page 4 line 28 should start a new paragraph and also be split into two. 5. Again there is general ambiguity in this whole background section as to whether this is about pharmacy or public health pharmacy so the power of the Background section to set the scene and identify the urgent question to be answered is somewhat diluted. 6. I found the Methods section slightly confused. It would benefit from a clearer structure of study design, then outcomes and definitions, then data source, including any importing to another database, cleaning, etc. Then analysis follows. 7. The Results are well presented although at times the message gets slightly lost 8. I felt the Discussion was quite long, and similar points apply as above *it is not an international study *be clear about whether it is public health or access to pharmacy that is the main point

VERSION 1 – AUTHOR RESPONSE

Reviewer Name Ben Barr
Institution and Country University Of Liverpool, UK
Please state any competing interests or state ‘None declared’: None

This is an interesting paper which raises an important issue, indicating that access to pharmacies is

potentially better in more deprived areas than more affluent areas. With pharmacies increasingly being used to deliver public health initiatives this has important implications for health inequalities policy. The methods seem to be appropriate. The finding potentially just reflects that the distribution of pharmacies is related to population density and deprivation is highly correlated with population density. Although the authors adjust for urbanity/rurality - controlling for population density would provide a better estimate of whether the effect is independent of population density. However regardless of the effect of controlling for these factors, the observation that almost all people living in deprived areas have access to a pharmacy within 20 minutes walk is important.

We disagree with this point as controlling for urbanity/rurality is indirectly controlling for population too, as urban areas are naturally more densely populated; this is clear within the definition of urban/rural

The analysis of the interaction between deprivation and rurality in Table 2 seems to be slightly superfluous, a graph of the data in table 1 is sufficient to see that the relationship with deprivation differs accross rurality/urbanity groups and is most pronounced in the town and fringe areas.

We agree that table 2 is superfluous and have removed this table, and the commentary around it

It would be useful to have some discussion of the processes that result in this distribution of pharmacies, is this likely to be just due to market forces, or is it likely to be the result of the process for accepting new pharmacy applications by NHS England.

We agree with this point and have and have added a short section relating to the control of entry regulations for community pharmacies in England and an appropriate reference.

The paper would be strengthened by a comparison to the distribution of other independent contractors such as GP practices and a discussion of the implications of this for policies that effect this distribution.

We agree, but sadly comparative data is limited (without having to the re-calculate distribution of other contractors, as we have done for community pharmacies). We also believe that, to some extent, by adding in a separate discussion around comparing access to other GP providers may dilute the key message of our paper. We are, however, undertaking a follow up study where we are comparing community pharmacy access to GP access. We anticipate this study will be complete in the coming months and will be a follow up to this paper.

Reviewer Name Christine Bond
Institution and Country University of Aberdeen, UK
Please state any competing interests or state ‘None declared’: None declared

This is a very interesting paper. There are various figures used to describe access to community pharmacies but many of these are rumoured to be ad hoc calculations and this is the first study I am aware of that has looked at this issue systematically in England.

Thank you

I think there is however a slight ambiguity in the main focus of the paper on whether or nor this is about access to community pharmacies per se, or about access to Public Health Service from community.

The main focus of the paper is about access to community pharmacies in England. We have edited

the paper to emphasise this by acknowledging that community pharmacies deliver ‘healthcare interventions’ – many of which relate to medicines use. We have also removed some aspects of the paper that specifically relate to community pharmacy public health services.

However, to frame our article, we believe it is important to do so in the context of the changing role of community pharmacy, which, relates, at least in part, to the delivery of public health initiatives. We also believe that accessibility to healthcare services (as a social determinant of health) fits within a broader discussion of public health.

Furthermore, as we have calculated working distance according to deprivation decile, we believe it is essential to discuss the data in the context of public health – especially given the recent and pertinent discussions around inequalities in health (e.g. The Strategic Review of Health Inequalities in England [the Marmot Review]).

In their own critique the authors acknowledge that they do not have information in their data set on what services each pharmacy offers so my suggestion would be to reframe the paper so it is about access to community pharmacies.

On reflection we have removed this statement. In essence, what services community pharmacies currently offer, while interesting, is not paramount to our study. Our rationale is that, in England, through locally commissioned services, all community pharmacies have the potential to offer healthcare services (whether or not they are commissioned to do so and the reasons for this is another question) and this is important for the future commissioning of such services.

Consideration of what that means would then be in the Discussion. The Background should summarise the pharmacy contract, and make clear for non pharmacists and non English readers the three tiers of service and the recent changes in commissioning for public health services. In general I think it could be shortened without losing any detail.

We agree with this point and have now added a section on the NHS Community Pharmacy Contractual Framework (and an appropriate reference) so the paper is clearer for non-English and non-pharmacist readers.

Some specific comments follow.
1. Under strengths and limitations the first bullet implies this is an international comparison which it is not

We have now amended the first bullet point to make it clear that this is not an international study.

2. The final bullet in same section also underlies the point about public health made in my general observations.

Thank you for making this point. We have modified the sentence so it does not exclusively relate to public health services.

3. I actually disagree with the first sentence of the background section. Whilst it is true that there is an emphasis on public health, the core contract remains medicine focussed and the advances services, which are nationals are about better use of medicines in acute and chronic conditions. The enhances services are commissioned at local level and it is many of these that have the public health focus.

We have modified the first paragraph section to make it clear that, as well as providing public health services, community pharmacists also provide medicine focused services. However, while we

acknowledge the core contact (Essential services in England) remains medicine focused, this may not necessarily reflect the core activities of a community pharmacy. Indeed, since the introduction of the Category M pricing for medicines, the core activities of many community pharmacies relate to locally commissioned services.

4. Suggest sentence starting page 4 line 28 should start a new paragraph and also be split into two.

Thank you for making this point. We have checked page 4 line 28 and it appears to start with a new paragraph. To the Editor – can you please check this?

5. Again there is general ambiguity in this whole background section as to whether this is about pharmacy or public health pharmacy so the power of the Background section to set the scene and identify the urgent question to be answered is somewhat diluted.

As discussed above, we have re-focused our paper to put more emphasis on the accessibility aspect, but have used the public health element to frame our work. We believe that accessibility to healthcare services (as a social determinant of health) fits within a broader discussion of public health. We could discuss other community pharmacy services in England (such as the Medicine Use Review) in relation to accessibility, but given the significance of the agenda around health inequalities, we believe the background section sets out this important question.

6. I found the Methods section slightly confused. It would benefit from a clearer structure of study design, then outcomes and definitions, then data source, including any importing to another database, cleaning, etc. Then analysis follows.

The methods section has been restructured as suggested.

7. The Results are well presented although at times the message gets slightly lost

Thank you. We have checked the results section and removed Table 2, as we felt this we largely superfluous. Also, we have included a ‘principal findings of our study’ in the first section of the discussion.

8. I felt the Discussion was quite long, and similar points apply as above
*it is not an international study
*be clear about whether it is public health or access to pharmacy that is the main point

We have amended the paper to make it clear that this is not an international study.